North Carolina Department of Military and Veterans Affairs

Agency Utility Management Plan

2019-2021

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Purpose

To provide Secretary Hall of the North Carolina Department of Military and Veterans Affairs & Department of Environmental Quality information on Executive Order No. 80.

> *"The North Carolina Department of Military and Veteran Affairs is the newest state government agency and we are dedicated to helping our veterans and active duty men and women access the programs, benefits and resources that they earned when they took the oath and answered the call to service. Our staff is committed to providing the highest level of service, responsiveness and integrity in keeping with the principles and values of this state and nation that our military and their families deserve. "*
>
> *Larry D. Hall, Secretary of Department of Military and Veteran Affairs*

Overview

- The Department of Military and Veterans Affairs owns and has oversight of the management of 4 Skilled Care State Veteran Homes housing a capacity of 449 veterans and spouses and are currently planning 2 additional homes to provide more housing for veterans in the state.
- The agency also owns and operates 4 State Veteran Cemeteries with Chapels.
- North Carolina has one of the largest military footprints of any state in the country, representing three out of the four branches of service and totaling 129, 049 in 2016. Military and defense industries are the second largest employers in our state, and the military has an economic impact of $66 billion annually. The military bases located in North Carolina are major drivers in our communities, allowing families and business to thrive through the synergy and partnerships that have developed between local and state government, military and defense sectors, and local businesses throughout our history.

Utility Management Plan Goals

Department Veterans Affairs Nursing Homes

Salisbury State Veteran Home

- Replacement of T12 Bulbs to T8 Bulbs to capitalize on potential energy savings. Seek funding to replace existing T12 Fluorescent Fixtures to T8 LED fixtures.
- Investigate feasibility of Solar Powered Water Heater System
- Investigate Heating Ventilation & Air Conditioning System replacement with an Energy Conservation System.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.
- Investigate how to monitor utility consumption on site
- Educate and engage employees in energy conservation best practices through meeting presentations, emails, Intranet web sites, etc.

Fayetteville State Veteran Home

- Replacement of T12 Bulbs to T8 Bulbs to capitalize on potential energy savings. Seek funding to replace existing T12 Fluorescent Fixtures to T8 LED fixtures.
- Investigate feasibility of Solar Powered Water Heater System

- Investigate Heating Ventilation & Air Conditioning System replacement with an Energy Conservation System.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.
- Investigate how to monitor utility consumption on site
- Site walkthrough with State Energy Office to look for additional low/no cost projects
- Educate and engage employees in energy conservation best practices through meeting presentations, emails, Intranet web sites, etc.

Black Mountain State Veteran Home

- Replacement of T12 Bulbs to T8 Bulbs to capitalize on potential energy savings. Seek funding to replace existing T12 Fluorescent Fixtures to T8 LED fixtures.
- Investigate feasibility of Solar Powered Water Heater System
- Investigate Heating Ventilation & Air Conditioning System replacement with an Energy Conservation System.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.
- Investigate how to monitor utility consumption on site
- Site walkthrough with State Energy Office to look for additional low/no cost projects
- Educate and engage employees in energy conservation best practices through meeting presentations, emails, Intranet web sites, etc.

Kinston State Veteran Home

- Replacement of T12 Bulbs to T8 Bulbs to capitalize on potential energy savings. Seek funding to replace existing T12 Fluorescent Fixtures to T8 LED fixtures.
- Investigate feasibility of Solar Powered Water Heater System
- Investigate Heating Ventilation & Air Conditioning System replacement with an Energy Conservation System.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.
- Investigate how to monitor utility consumption on site
- Site walkthrough with State Energy Office to look for additional low/no cost projects
- Educate and engage employees in energy conservation best practices through meeting presentations, emails, Intranet web sites, etc.

Raleigh State Veteran Home (Design Phase)

- Will be designed & built to current Energy Codes.
- Will participate in the Duke Energy New Construction Energy Efficiency Design Assistance Program provided by the Weidt Group.
- Investigate how to monitor utility consumption on site

Kernersville State Veteran Home (Design Phase)

- Will be designed & built to current Energy Codes.
- Will participate in the Duke Energy New Construction Energy Efficiency Design Assistance Program provided by the Weidt Group.
- Investigate how to monitor utility consumption on site

Department of Military & Veterans Affairs Cemeteries

Western Carolina State Veterans Cemetery

- Seek funding to install an energy efficient irrigation system in place of staff manual watering system.
- Research funding and options to retrofit lighting to LED fixtures.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.

Coastal Carolina State Veterans Cemetery

- Seek funding to replace existing irrigation System with an energy efficient system.
- Research funding and options to retrofit lighting to LED fixtures.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.

Sandhills State Veterans Cemetery

- Seek funding to install an energy efficient Irrigation system in place of staff manual watering system.
- Research funding and options to retrofit lighting to LED fixtures.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.

Eastern Carolina State Veterans Cemetery

- Seek funding to install an energy efficient Irrigation system in place of staff manual watering system.
- Research funding and options to retrofit lighting to LED fixtures.
- Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.

Military Installations in NC

"The chief priority of the Department of Defense (DoD) energy policy is to ensure the mission readiness of the armed forces by pursuing energy security and energy resilience. In today's technology-dependent environment, energy is inextricably combined with the Department's missions, from the directly employed weapons systems to the installations and systems that support missions around the globe. In this environment, energy resilience, which enables the capabilities of weapons platforms, facilities, and equipment, is a critical investment that must be part of the Department's research, acquisition, operations, and sustainment conversations."

DoD Installation Energy Resilience Objective, Pages 3-6 Military Order

Marine Core Installation Energy Program:

Camp Lejeune

- In our fiscally constrained environment, "must pay" bills such as energy and water compete with other critical mission priorities such as personnel, flight hours, ordnance, weapon systems, and equipment all critical to our mission. Smart use of these resources, 'using only what we need,' therefore, becomes a combat enabler and not a constraint. Marine Corps Installations East (MCIEAST) – as the Marine Corps' largest regional consumer of energy, second largest regional consumer of water, second largest purchaser (by budget dollars) of energy, and third largest purchaser of water resources – plays a key role in executing this guidance. Through this Energy

and Water Strategy, we establish the priorities, conditions, and resources for Installation Commanders and their tenant units and organizations to understand and effectively manage energy and water as a critical component to Mission Readiness. Marine Corps Installations East Marine Corps Base, Camp Lejeune Far East Commanding General encourages MCIEAST leaders and Marines to become familiar with the tenets of this strategy and to actively support it with execution in our daily lives.

- Site visits or teleconferences to connect with the energy manager on site
- Determine installations strategy energy security and sustainability goals
- Collaborate to share best practices and knowledge gained from energy and water initiatives

United States Coast Guard Installation Energy Program:

As the Nation's maritime first responder, executing the Coast Guard's diverse and far-reaching missions requires adaptability, sustainability, and resilience. We are a ready and responsive regulatory and environmental enforcement organization, and our services depend on a commitment to address threats directly, while protecting and safeguarding our natural and economic resources and our environment.

We remain dedicated to both protecting and safeguarding our natural resources and the economic value of the maritime domain. As we elevate mission effectiveness, organizational risks, environmental impact and fiscal consequences into our daily leadership decisions, all Coast Guard members shall:

Coast Guard's Base Support

- Perform daily operational and support duties with a purpose that includes a personal commitment to environmental protection and energy conservation.
- Strive to reduce impacts to our operations from foreseeable environmental and energy constraints;
- View energy and environmental management solutions from both a Coast Guard and Departmental perspective to maximize efficiency and reduce impacts.
- Strive to optimize investment opportunities to reduce environmental and energy risks to current and future operations, support configuration standards for improved reliability, adaptability, and reduced life-cycle costs.
  Enhance energy and infrastructure resilience to improve our security from manmade and natural disasters, extending our capabilities across all missions
- Site visits or teleconferences to connect with the energy manager on site
- Determine installations strategy energy security and sustainability goals
- Collaborate to share best practices and knowledge gained from energy and water initiatives

Army Installation Energy Program:

The Army's energy, water, and sustainability programs fall under the purview of the Under Secretary of the Army as the Army's Senior Sustainability Official (SSO). The Assistant Secretary of the Army for Installations, Energy, and Environment (ASA(IE&E)) is the designated official with primary responsibility to support the Under Secretary of the Army in the role of SSO. The

Collaborate to share best practices and knowledge gained from energy and water initiatives

Deputy Assistant Secretary of the Army for Energy and Sustainability (DASA(E&S)) is the Army's designated Senior Energy Executive and Senior Sustainability Executive. Energy and water security implementation progress occurs at all levels of command across the Army. Using guidance provided by the Office of the Assistant Chief of Staff for Installation Management (OACSIM), landholding Army Commands monitor their progress against strategic energy security and sustainability goals and take

necessary actions to improve performance. OACSIM reports progress at the Command level to the Senior Energy and Sustainability Council (SESC). The Army periodically reevaluates metrics to foster a culture of continual process improvement.

Seymour Johnson Air Force

Each component of the Air Force Energy Team plays an important role in striving to meet the service-wide energy priorities to: (1) improve resilience, (2) optimize demand, and (3) assure supply. These priorities support the Air Force vision to "enhance mission assurance through energy assurance," which moves the Air Force toward the "sweet spot" of facility energy that is resilient, cost-effective, and cleaner. The Assistant Secretary of the Air Force for Installations, Environment, and Energy (SAF/IE) is the Air Force's Senior Energy Official and provides guidance, direction, and oversight for all matters pertaining to the formulation, review, and execution of plans, policies, programs, and budgets, as well as Air Force positions regarding federal and state legislation and regulations related to energy and water use. Headquarters Air Force provides:

- Information to support governance and oversight of energy management activities;
- Procedures and objectives to address and manage Air Force facility energy and water consumption, throughput, and requirements, in alignment with policies and strategic direction;
- Policies, guidance, procedures, and practices to enhance Air Force energy assurance with the goal of energy resilience and develop a state of energy security to meet mission essential requirements.
- Site visits or teleconferences to connect with the energy manager on site to determine installations strategy energy security and sustainability goals.
- Collaborate to share best practices and knowledge gained from energy and water initiatives

Air Force Installation and Mission Support Center (AFIMSC) and its primary subordinate unit, Air Force Civil Engineer Center (AFCEC) develop and execute facility energy programs, plans, and policies in support of the Air Force strategic energy priorities and goals and are responsible for the integration of major command mission requirements with Air Force strategic energy priorities and goals. Specifically, AFIMSC:

NC Department of Military & Veterans Affairs
Agency Utility Management Plan

- The NC Department of Military & Veterans Affairs recognizes that energy and water consumption can be managed for the benefit of our agency. Energy and Water management is the responsibility of the staff at each facility, which will be guided and supported by the Energy Manager Designee for NC DMVA.
- The Department of Military & Veterans Affairs has implemented an Agency Utility Management Plan. The Director of Facilities Management Division is responsible for the success of the program in NC DMVA facilities.
- The attached plan outlines the activities and expenditures required to reduce energy and water consumption to achieve the goals of the program.
- The Department Secretary's staff will review progress and results and will support staff attendance at training in energy and water management.

Agency Utility Management Plan Goals

- As required in Executive Order 80, NC DMVA will support efforts to reduce by 2025 total energy consumption per square foot in state owned buildings by at least 40% below fiscal year 2012-2013 levels and reduce state-wide greenhouse gas emissions to 40% below 2005 levels.

Strategic Energy and Water Plan Mandate – Commitment

I have read the Agency Utility Management Plan for the NC Department of Military and Veterans Affairs. The plan, as presented, supports the reduction goals in Executive Order 80.

Implemented this 24th day of April 2019

DMVA Architect/ Energy Manager

Larry D. Hall
Department Secretary

Appendix A

Sample Utility Management Plan

2019-20

Comprehensive Plan	
Strategy 1.	Designate Energy Manager as the point of contact for SEO
Strategy 2.	Edit or create a plan to reflect EE strategy toward 40% reduction in Btu/gsf.
Strategy 3.	Contact the SEO to assist with review of strategy, budget, training, and timeline.
Strategy 4.	Develop internal stakeholders to develop behavioral programming and internal team building toward goals
Strategy 5.	Implement Plan

2019-2020 Planned Activities	**Expected Measurement**	**Assigned To**	**Occurrence**
Meet with SEO to develop ideas for plan	Discuss training schedule available, current Utility Management Plan and future Management Plan	Energy Manager and SEO staff	Quarterly
Research facilities for potential energy savings projects	Create a list to use for potential projects to be implemented in the Utility Management Plan	Energy Manager and Agency Staff	Monthly
Create a Utility Management Plan	Complete timeline and approvals from agency and submit plan to SEO	Energy Manager and staff	Due March 1, 2019, thereafter October 1st each year
Attend SEO or other energy conservation training sessions	Discuss lessons learned with staff and how that can enhance your strategy	Agency staff	(add dates of training)
Develop internal stakeholders and internal teams to implement plan	Designate a person or team to implement portions on the plan	Energy Manager and staff	May, 2019
Develop internal marketing and awards/rewards program	Designate person to develop programming and implement program	Energy Manager and staff	May, 2019

2019-2020 Planned Activities	Expected Measurement	Assigned To	Occurrence
Review Utility Management Plan progress	Tweak plan if it is not realizing expected savings	Energy Manager	Quarterly
Track utility data	Record monthly utility data for annual utility report to submit to SEO and trend to catch anomalies early on	Energy Manager	Monthly, September 1st each year

2019-20

Projects to Implement	
Strategy 1.	Review projects with staff to determine high priority projects to implement
Strategy 2.	Work with staff to determine the best timeframe to implement projects
Strategy 3.	Create a schedule for projects to be implement during the fiscal year
Strategy 4.	Communicate projects to staff
Strategy 5.	Implement projects

Planned Activities	Expected Measurement	Assigned To	Occurrence
Research lighting retrofit or replacement opportunities in Retirement Homes	Replacement of T12 Bulbs to T8 Bulbs to capitalize on potential energy savings. Seek funding to replace existing T12 Fluorescent Fixtures to T8 LED fixtures.	Energy Manager	
Investigate feasibility of Solar Powered Water Heater System	Determine if installation of solar powered water heating system feasible	Energy Manager and Agency Staff	
Investigate feasibility of Power Company LED/ Solar Light Pole Leasing Program.	Determine if lighting can be upgraded on pole lighting by utility company	Energy Manager and Agency Staff	
Investigate Heating Ventilation & Air Conditioning System replacement with an Energy Conservation System	Determine which units can be retrofitted or upgraded to more energy efficient units	Energy Manager	
Investigate how to monitor utility consumption on site	Determine the best method to track utility data	Energy Manager	
Site walkthrough with State Energy Office	Look for additional low/no cost projects	Energy Manager and staff	

Educate and engage employees in best practices	Educate and engage employees in energy conservation best practices through meeting presentations, emails, Intranet web sites, etc.	Energy Manager and staff	
Building New Retirement Homes to current Energy Codes.	Design and build new facilities to be energy efficient.	Energy Manager and staff	
Participate in Duke Energy New Construction Energy Efficiency Design Assistance Program	Participate in the the program provided by the Weidt Group.	Energy Manager and staff	
Lighting retrofits at cemetery.	Research funding and options to retrofit lighting to LED fixtures.	Energy Manager and staff	